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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/090,888

03/04/2002

David F. Bantz

YOR920010527US1

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29683

7590

04/05/2006

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EXAMINER

NI, SUHAN

ART UNIT

PAPER NUMBER

2615

DATE MAILED: 04/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/090,888

Applicant(s)

BANTZ ET AL.

Examiner

Suhan Ni

Art Unit

2615

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 February 2006.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 and 23-40 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☒ Claim(s) 23-29 is/are allowed.
6) ☒ Claim(s) 1, 3-4, 6-14 and 38-40 is/are rejected.
7) ☒ Claim(s) 2, 5 and 30-37 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

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DETAILED ACTION

1. The Art Unit location of your application in the PTO has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Group **Art Unit 2615**.
2. This communication is responsive to the petition filed 02/15/2006 and the finality made in the office action mailed 12/19/2005 is withdrawn. A new ground of rejection is set forth below in response to the amendment filed 04/12/2005.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) The invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) The invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

3. Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Nami (U.S. Pat. - 6,832,039).

Regarding claim 1, Nami discloses a system (Fig. 4) for adjusting audio output, comprising: a transmitter unit (16) adapted to be carried by a user, the transmitter unit comprising a memory (Fig. 7) and a signal transmitter (15); and an entertainment sound generating system (10) comprising a sound generator (12) adapted to output entertainment sound signals based upon input entertainment data (13), a signal receiver (12), means (12) for altering the sound signals from the sound generator based upon a signal transmitted by the signal

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transmitter (15) to the receiver (14), and at least one acoustic transducer coupled to the altering means as claimed inherently.

4. Claims 38-40 are rejected under 35 U.S.C. 102(e) as being anticipated by Westermann (U.S. Pat. - 6,549,633).

Regarding claim 38, Westermann discloses a system (Fig. 1) for adjusting audio output, comprising: a transmitter unit (1) adapted to be carried by a user, the transmitter unit comprising a memory (30) and a signal transmitter (7); and a sound generating system (2) comprising a sound generator (31) adapted to output sound signals based upon input data, a signal receiver (8), an altering system (9, 10, 12, 13) for altering the sound signals from the sound generator based upon a signal transmitted (6) by the signal transmitter to the receiver, and at least one acoustic transducer (15) coupled to the altering system, wherein the transmitter unit is adapted to automatically send the signal to the receiver without user activation as claimed.

Regarding claim 39, Westermann further discloses the system, wherein the transmitter unit is adapted to periodically transmit the signal under a DSP clock as claimed inherently.

Regarding claim 40, Westermann further discloses the system, wherein the transmitter unit is adapted to automatically transmit the signal based upon a predetermined event, such as a preset clock alarm is on, as claimed.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 3-4 and 6-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyahara (U.S. Pat – 5,610,988).

Regarding claim 1, Miyahara discloses a system (Fig. 1) for adjusting audio output, comprising: a transmitter unit (20) adapted to be carried by a user, the transmitter unit comprising a memory (41) and a signal transmitter (27); and an entertainment sound generating system (10) comprising a sound generator (51) adapted to output sound signals based upon input data, a signal receiver (Fig. 3), means (61) for altering the sound signals from the sound generator based upon a signal transmitted by the signal transmitter to the receiver, and at least one acoustic transducer (57) coupled to the altering means as claimed. But Miyahara does not clearly teach that the sound generator is adapted to output entertainment sound signals based upon input entertainment data and a player adapted to play the entertainment data as claimed. Since Miyahara does disclose a hearing aid set, and for a hearing aid user to listen to entertainment sound generated by a player, such as a TV set, a CD player, or MP3 player is very well known in the art. Therefore, it would have been obvious to one skilled in the art at the time the invention was made to provide a suitable player, such as a CD player to the user of the hearing aid (as simple as to put a TV in front of the hearing aid user), in order to provide desirable entertainment, such as music, to the hearing aid user.

Regarding claim 3, Miyahara does not clearly teach that the transmitter unit further comprises a battery connected to the signal transmitter as claimed. Since providing a suitable power source for a transmitter unit is very well known in the art. Therefore, it would have been obvious to one skilled in the art at the time the invention was made to provide a suitable power

source, such as a battery for the transmitter unit of the hearing system, in order to power up the transmitter unit for effectively transmitting data or signals.

Regarding claim 4, Miyahara does not clearly teach that the memory is a nonvolatile memory as claimed. Since providing a non-volatile memory for a transmitter unit of the hearing aid system is very well known in the art. Therefore, it would have been obvious to one skilled in the art at the time the invention was made to provide a suitable memory device, such as a non-volatile memory for the transmitter unit of the hearing system, in order to efficiently and effectively manufacture the hearing aid system.

Regarding claim 6, Miyahara does not clearly teach that the memory is reprogrammable as claimed. Since providing a reprogrammable memory for a transmitter unit of the hearing aid system is very well known in the art. Therefore, it would have been obvious to one skilled in the art at the time the invention was made to provide a suitable memory device, such as the reprogrammable memory for the transmitter unit of the hearing system, in order to efficiently and effectively operate the hearing aid system.

Regarding claim 7, Miyahara further discloses the system for adjusting audio output, wherein the altering means comprises a processor (61) connected to the signal receiver (16) and the sound generator (51).

Regarding claims 8-13, Miyahara further discloses the system for adjusting audio output, wherein the altering means comprises an electrical sound signal modifier (53-55) connected to an output of the sound generator and controlled by the processor (61). But Miyahara does not clearly teach a multi-frequency-channel processing as claimed. Since providing a filterbank for a multi-frequency-channel processing for a hearing aid system is very well known in the art.

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Therefore, it would have been obvious to one skilled in the art at the time the invention was made to provide suitable mean, such as a filterbank and processing software for the hearing aid system, in order to provide a hearing system having effective and efficient multi-frequency-channel processing feature.

Regarding claim 14, Miyahara further disclose the system for adjusting audio output, wherein the at least one acoustic transducer comprises speakers (57).

Allowable Subject Matter

6. Claims 23-29 are allowed.

7. Claims 2, 5, 30-37 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Amendment

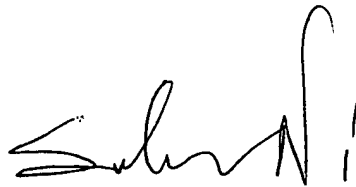
Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Suhan Ni** whose telephone number is (571)-272-7505, and the number for fax machine is (571)-273-7505. The examiner can normally be reached on Monday through Thursday from 10:00 am to 8:00 pm. If it is necessary, the examiner's supervisor, **Sinh N. Tran**, can be reached at (571)-272-7564.

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9. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (**PAIR**) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov/>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).
10. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the group receptionist whose telephone number is **(703) 305-3900**.



SUHAN N
PRIMARY EXAMINER

March 30, 2006